

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION**

WSOU INVESTMENTS, LLC D/B/A
BRAZOS LICENSING AND DEVELOPMENT,

Plaintiff,

v.

HEWLETT PACKARD ENTERPRISE COMPANY AND
NEW H3C TECHNOLOGIES CO. LTD.,

Defendant.

Civil Action No. 6:20-cv-00725-ADA

JURY TRIAL DEMANDED

**BRAZOS’S SECOND AMENDED COMPLAINT AGAINST HPE AND H3C FOR
INFRINGEMENT OF U.S. PATENT NO. 7,280,534**

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development (“Brazos”), by and through its attorneys, files this First Amended Complaint for Patent Infringement against defendant Hewlett Packard Enterprise Company (“HPE”) New H3C Technologies Co., Ltd. (“H3C”) (collectively, “Defendants”), and alleges:

NATURE OF THE ACTION

1. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*, including §§ 271, 281, 284, and 285.

2. Brazos alleges that Defendants infringe U.S. Patent No. 7,280,534 (“the ’534 Patent”). Brazos seeks damages and other relief for their infringement of the ’534 Patent.

THE PARTIES

3. Brazos is a limited liability company organized and existing under the laws of Delaware, with its principal place of business at 605 Austin Avenue, Suite 6, Waco, Texas 76701.

4. Upon information and belief, HPE is a corporation organized and existing under the laws of Delaware, with a regular and established place of business located at 14231 Tandem Boulevard, Austin, Texas 78728. HPE may be served through its designated agent for service of process, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas, 75201.

5. Upon information and belief, H3C is a corporation formed under the laws of China with a principal place of business at Tower 1, LSH Center, 8 Guangshun South Street, Chaoyang District, Beijing 100102 China. H3C is a provider of digital solutions ranging from digital infrastructure products to digital platforms and end-to-end technical services.

6. HPE has a “unique partnership” with H3C in which it owns a 49 percent stake in H3C.¹

7. HPE has commercial arrangements with H3C to buy and sell HPE branded servers, storage, and networking products. During FY 2020, 2019 and 2018, HPE recorded approximately \$737 million, \$897 million and \$1.3 billion of sales to H3C and \$215 million, \$202 million and \$273 million of purchases from H3C, respectively. Payables due to H3C as of October 31, 2020 and 2019 were approximately \$29 million and \$39 million, respectively. Receivables due from H3C as of October 31, 2020 and 2019 were approximately \$19 million and \$32 million, respectively.²

JURISDICTION AND VENUE

8. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

¹ <https://www.hpe.com/us/en/newsroom/press-release/2019/09/hewlett-packard-enterprise-new-h3c-delivers-double-digit-market-share-and-attains-number-one-position-in-second-quarter-of-2019-worldwide-server-revenue-tracker.html>; *see also* <https://www.sec.gov/ix?doc=/Archives/edgar/data/1645590/000164559020000056/hpe-20201031.htm> at 49.

² *See* <https://www.sec.gov/ix?doc=/Archives/edgar/data/1645590/000164559020000056/hpe-20201031.htm> at 138.

9. This Court has personal jurisdiction over both Defendants. Upon information and belief, Defendants, directly and/or through intermediaries, regularly conduct business and have committed acts of patent infringement and/or have induced acts of patent infringement by others in this Judicial District and/or have contributed to patent infringement by others in this Judicial District, the State of Texas and elsewhere in the United States. The Court's exercise of jurisdiction over Defendants would not offend traditional notions of fair play and substantial justice because Defendants have established minimum contacts with the forum with respect to both general and specific personal jurisdiction and have purposefully availed themselves of the privilege of doing business within this District such that they should reasonably and fairly anticipate being brought into court here.

10. This Court has general and specific jurisdiction over HPE. Upon information and belief, HPE has continuous and systematic business contacts with the State of Texas. HPE is registered to do business in the State of Texas, has offices and facilities in the State of Texas, and actively directs its activities to customers located in the State of Texas. HPE, directly and/or through affiliates and/or intermediaries, conducts its business extensively throughout Texas, by shipping, importing, manufacturing, distributing, offering for sale, selling, and/or advertising its products and services in the State of Texas and this Judicial District. Upon information and belief, HPE is subject to the Court's specific jurisdiction by, among other things, directly or indirectly, making, using, offering to sell, and/or selling in the State of Texas and this Judicial District and/or importing into the State of Texas and this Judicial District infringing products.

11. Upon information and belief, Defendants, directly or through intermediaries, participate in the stream of commerce that, with their knowledge, results in infringing products being made, used, offered for sale, and/or sold in the State of Texas and/or imported into the

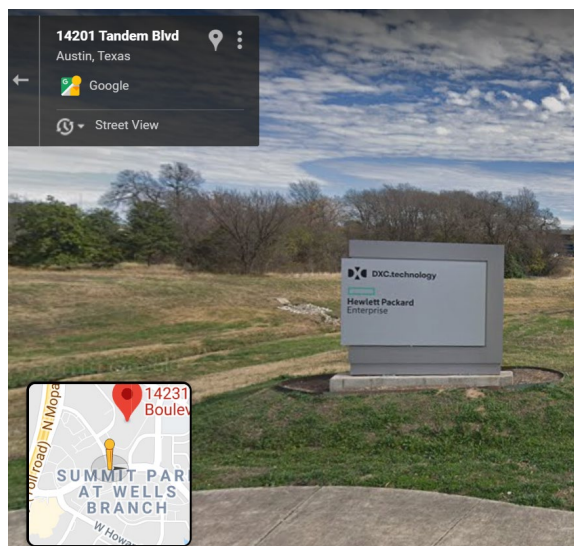
United States to the State of Texas, including through retailers, distributors, and/or authorized dealers and sales agents in Texas and this Judicial District. Upon information and belief, Defendants, directly or through intermediaries, derive revenues from their infringing acts and the infringing acts of others occurring within the State of Texas and in this Judicial District. Additionally, Defendants, directly or through intermediaries, provide service and support to their customers in the State of Texas and this Judicial District.

12. In addition, or in the alternative, this Court has personal jurisdiction over H3C under Federal Rule of Civil Procedure 4(k)(2) because H3C is not subject to jurisdiction with respect to claims in this complaint in any other state's courts of general jurisdiction and exercising jurisdiction over H3C is consistent with the United States Constitution and laws because H3C has established minimum contacts with the United States as a whole.

13. Venue is proper over defendant H3C in this Court pursuant to 28 U.S.C. § 1391 because, among other things, defendant H3C is a foreign defendant and not a resident in the United States, and thus may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).

14. Venue is proper over HPE because in this Court pursuant to 28 U.S.C. § 1400(b) because defendant HPE is registered to do business in Texas, and, upon information and belief, HPE has offices in this Judicial District, has transacted business in this Judicial District, and has committed acts of direct and indirect infringement in this Judicial District by, among other things, making, using, distributing, installing, configuring, importing, offering to sell, and selling products that infringe the Asserted Patent. HPE has regular and established places of business in this Judicial District, as set forth below.

15. HPE maintains a regular and established place of business in this Judicial District, located at least at 14231 Tandem Boulevard, Austin, Texas 78728.^{3,4}



16. Upon information and belief, HPE conducts business and serves customers from its regular and established place of business in Austin, Texas, in this District. Upon information and belief, HPE's Austin office is located on a 52-acre campus.⁵

17. In October 2019, it was reported that HPE signed a lease for a 27,326-square-foot-space in a 164,714-square-foot office building in North Austin at Paloma Ridge, located at 13620 FM 620 Austin, Texas, 78717.⁶

18. Upon information and belief, HPE owns at least two properties in Austin, Texas, in this District.⁷

³ See <https://www.hpe.com/us/en/contact-hpe.html>.

⁴ See <https://goo.gl/maps/mojArn1WxaHcHU8v8>; see also <https://goo.gl/maps/cBjm1De4gVPFMeam9>.

⁵ See <https://www2.colliers.com/en/properties/austin-continuum/USA-14231-tandem-boulevard-austin-tx-78728/usa1046778>.

⁶ See <https://communityimpact.com/local-news/austin/leander-cedar-park/coming-soon/2019/10/23/hewlett-packard-signs-lease-at-paloma-ridge-on-fm-620/>.

19. HPE maintains additional regular and established places of business in the State of Texas, nearby to this District, including at 11445 Compaq Center West Drive, Houston, Texas, 77070, and 6080 Tennyson Parkway, Suite 400, Plano, Texas 75024.⁸

20. HPE's website states that HPE is "a global edge-to-cloud Platform-as-a-Service company . . . that helps customers connect, protect, analyze, and act on all [of the customer's] data and applications wherever they live"⁹ Upon information and belief, HPE designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States products that infringe the Asserted Patent, directly and or through intermediaries, as alleged herein. HPE markets, sells, and/or offers to sell its products and services, including those accused herein of infringement, to actual and potential customers and end-users located in Texas and in this District, as alleged herein.

21. HPE's website permits customers to configure and customize HPE products, including the HPE FlexNetwork 5510 HI Switch Series, the HPE FlexFabric 5940 Switch Series and the HPE FlexFabric 5940 Switch Series, and request price quotes from HPE on the configured products.¹⁰ HPE's website also permits users to purchase HPE products directly from HPE's website.¹¹

22. Upon information and belief, HPE offers trainings and/or certifications to HPE partners, customers, and HPE employees including, *inter alia*, trainings and certifications

⁷ See <http://propaccess.traviscad.org/clientdb/SearchResults.aspx> (printout attached as Exhibit B).

⁸ See *supra* note 3.

⁹ See <https://www.hpe.com/us/en/about.html>.

¹⁰ See, e.g., <https://h22174.www2.hpe.com/SimplifiedConfig/Welcome> (printout attached as Exhibit C).

¹¹ See, e.g., <https://buy.hpe.com/us/en/networking/networking-switches/hpe-flexfabric-5940-switch-series/p/1009148840>.

regarding the sales and/or service of HPE products, including products designed and developed, in whole or in part by H3C. For example, HPE offers an HPE Certification to HPE employees, customers, and partners that teaches how to “design, implement, and configure complex data center solutions based on the HPE FlexNetwork Architecture.”¹²

23. As of August 2020, HPE advertised at least fifteen public job postings for positions at HPE’s Austin, Texas office.¹³

COUNT I
Infringement of U.S. Patent No. 7,280,534

24. Brazos re-alleges and incorporates by reference the preceding paragraphs 1–23 of this Complaint.

25. On October 9, 2007, the U.S. Patent & Trademark Office duly and legally issued the ’534 Patent, entitled “Managed IP Routing Services for L2 Overlay IP Virtual Private Network (VPN) Services.” A true and correct copy of the ’534 Patent is attached as Exhibit A to this Complaint.

26. The ’534 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

27. Brazos is the owner of all rights, title, and interest in and to the ’534 Patent, including the right to assert all causes of action arising under the ’534 Patent and the right to any remedies for the infringement of the ’534 Patent, including the exclusive right to recover for past infringement.

28. The Accused Products that infringe at least one claim of the ’534 Patent include but are not limited to HPE’s switches with support for multiprotocol label switching (“MPLS”)

¹² See <https://certification-learning.hpe.com/TR/datacard/Course/00908176>.

¹³ See <https://www.linkedin.com/jobs/search?keywords=Hewlett%20Packard%20Enterprise&location=Austin%2C%20Texas%2C%20United%20States> (printout attached as Exhibit D).

Layer 3 virtual private network (“VPN”), which include, but are not limited to, the HPE FlexNetwork 5510 HI Switch Series,¹⁴ the HPE FlexFabric 5930 Switch Series,¹⁵ the HPE FlexFabric 5940 Switch Series,¹⁶ the HPE FlexNetwork HSR6800 Routers,¹⁷ and the HPE FlexFabric 12900E Switch Series¹⁸ (collectively, the “Accused Products”).

29. Upon information and belief, HPE and/or H3C make, use, sell, offer for sale, import, and/or distribute the Accused Products in the United States, including within this Judicial District.

30. Upon information and belief, the Accused Products also include products designed and developed by H3C, alone or together with HPE. Such products include but are not limited to the HPE FlexNetwork 5510 HI Switch Series, the HPE FlexFabric 5930 Switch Series, the HPE FlexFabric 5940 Switch Series, the HPE FlexNetwork HSR6800 Routers, and the HPE FlexFabric 12900E Switch Series.

31. The Accused Products are configured to perform each element of and infringe at least exemplary claim 1 of the ’534 patent, which recites:

A method for providing Internet Protocol (IP) Virtual Private Network (VPN) services, comprising:

exchanging unique loop-back addresses of customer edges (CE) between said CEs via a respective data virtual circuit therebetween;

¹⁴ See <https://buy.hpe.com/us/en/networking/networking-switches/hpe-flexnetwork-5510-hi-switch-series/p/1008652960>; see also https://techhub.hpe.com/eginfolib/networking/docs/switches/5510hi/cr/5200-3843_hi-avail_cr/content/index.htm.

¹⁵ See <https://buy.hpe.com/us/en/networking/networking-switches/hpe-flexfabric-5940-switch-series/p/1009148840>; see also https://techhub.hpe.com/eginfolib/networking/docs/switches/5940-5930/5200-4864_hi-avail_cg/content/bk01-toc.htm.

¹⁶ *Id.*

¹⁷ See <https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643>.

¹⁸ See https://techhub.hpe.com/eginfolib/networking/docs/switches/12900/cg/5998-4367_mpls-cg/content/index.htm.

sending IP addresses of customer networks associated with each CE to an associated IP service controller (IPSC);
 broadcasting from said associated IPSC, said IP addresses of said associated customer networks to other IPSCs;
 sending, from each CE to an associated IPSC, a list of received loop-back addresses;
 sending, from each IPSC to an associated CE, customer network addresses received from other IPSCs; and
 populating, at each CE, a local routing table with information mapping said customer networks with a data virtual circuit.

32. The Accused Products are configured practice a method for providing Internet Protocol (IP) Virtual Private Network (VPN) services. For example, the HPE FlexNetwork 5510HI Switch Series provides “complete IPv4/IPv6, OpenFlow, and MPLS/VPLS features.”¹⁹ It “[p]rovides extended support of MPLS, including MPLS VPNs and MPLS Traffic Engineering (MPLS TE).”²⁰

33. The Accused Products provide Internet IP (IP) Virtual Private Network (VPN) services by supporting Multi-Protocol Label Switching (MPLS) VPN features.

34. The Accused Products can be configured as a Multi-VPN-Instance CE (“MCE”), which “allows you to create multiple VPN instances on a CE.”²¹ An MCE device can function as a customer edge (“CE”) device for multiple VPN instances and perform functions of a provider edge (“PE”).

35. The Accused Products are configured to exchange unique loop-back addresses of customer edges (CE) between said CEs via a respective data virtual circuit therebetween.

¹⁹ Ex. B *See* <https://h20195.www2.hp.com/v2/getdocument.aspx?docname=4aa6-2884enw> at 1.

²⁰ *See supra* note 19 at 6.

²¹ Ex. A *See* https://support.hp.com/hpesc/public/docDisplay?docId=a00007132en_us at 479.

36. The Accused Products (*i.e.*, an MCE) “each have an independent routing table and an address space to achieve service isolation.”²² The MCE can bind each VPN in a network with a VLAN interface on the MCE and create and maintain a separate routing table for each VPN.

37. The network diagram of Figure A depicts the use of the MCE feature to “exchange[] private routes with VPN sites and PE 1, and add[] the private routes to the routing tables of corresponding VPN instances”.²³

Figure 121 Network diagram for the MCE feature

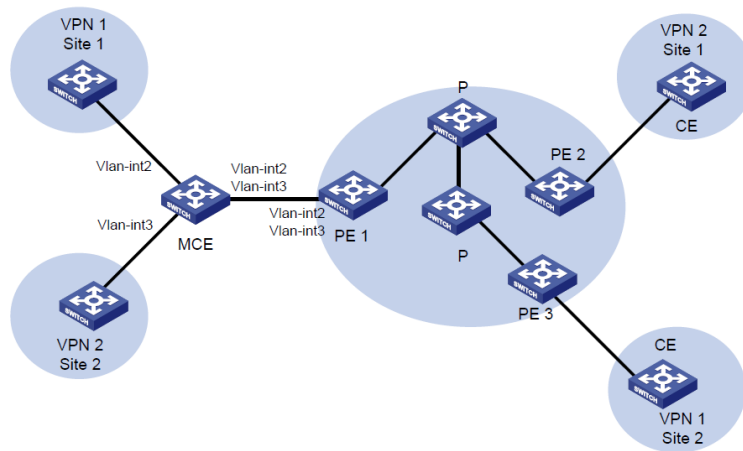


Figure A

38. In Figure A, there is a “Route exchange between MCE and VPN site” and a “Route exchange between MCE and PE”:²⁴

- **Route exchange between MCE and VPN site**—Create VPN instances VPN 1 and VPN 2 on the MCE. Bind VLAN-interface 2 to VPN 1, and VLAN-interface 3 to VPN 2. The MCE adds a received route to the routing table of the VPN instance that is bound to the receiving interface.
- **Route exchange between MCE and PE**—The MCE connects to PE 1 through a trunk link that permits VLAN 2 and VLAN 3. On

²² See *supra* note 21 at 479.

²³ See *supra* note 21 at 479–80.

²⁴ See *supra* note 21 at 479.

PE 1, create VPN instances VPN 1 and VPN 2. Bind VLAN-interface 2 to VPN 1, and VLAN-interface 3 to VPN 2. The MCE and PE add a received route to the routing table of the VPN instance that is bound to the receiving interface.

39. The Accused Products provide a feature of configuring a loopback interface to a customer edge (*i.e.*, MCE) associated with a VPN instance. The loopback interface address is configured for the Customer Edge 1 (“CE 1”) as shown in the network diagram of Figure B and associated Interface and IP address assignment table of Table C below:²⁵

Figure 79 Network diagram

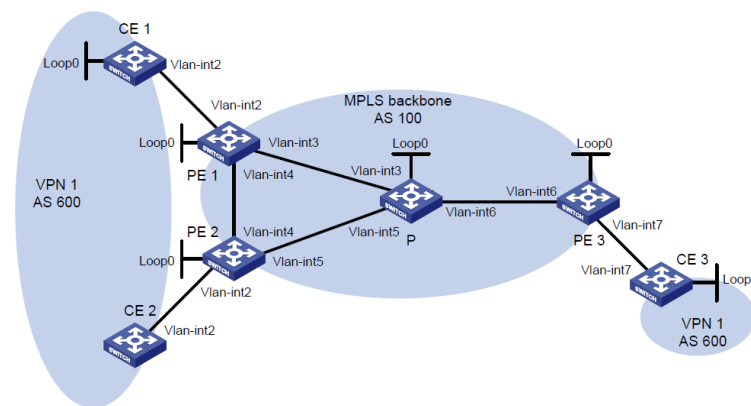


Figure B

Table 23 Interface and IP address assignment

Device	Interface	IP address	Device	Interface	IP address
CE 1	Loop0	100.1.1.1/32	CE 3	Loop0	200.1.1.1/32
	Vlan-int2	10.1.1.1/24		Vlan-int7	10.3.1.1/24
CE 2	Vlan-int2	10.2.1.1/24	PE 2	Loop0	2.2.2.9/32
PE 1	Loop0	1.1.1.9/32		Vlan-int2	10.2.1.2/24
	Vlan-int2	10.1.1.2/24		Vlan-int4	40.1.1.2/24
	Vlan-int3	30.1.1.1/24		Vlan-int5	50.1.1.1/24
	Vlan-int4	40.1.1.1/24	P	Loop0	3.3.3.9/32
PE 3	Loop0	4.4.4.9/32		Vlan-int3	30.1.1.2/24
	Vlan-int6	60.1.1.2/24		Vlan-int5	50.1.1.2/24
	Vlan-int7	10.3.1.2/24		Vlan-int6	60.1.1.1/24

Table C

CE 2 learns the loopback interface address from CE1:²⁶

Configure BGP AS number substitution:

²⁵ See *supra* note 21 at 297.

²⁶ See *supra* note 21 at 298.

```
# Configure BGP AS number substitution on PE 1, PE 2, and PE 3.
...

# Display routing information on CE 2. The output shows that CE
2 has learned the route for 100.1.1.1/32 from CE 1. A routing loop
has occurred because CE 1 and CE 2 reside in the same cite.
```

The loopback addresses are communicated between the CEs, which are owned and/or controlled by the same entity. Upon information and belief, an MCE can perform the same loopback interface functionality as performed by a CE, as an MCE device can function as a CE device for multiple VPN instances.

40. As shown in Figure A, the MCE is connected to the PE 1 through a trunk link with VLAN interfaces. In the core network, the PEs are connected by Pseudowires (PWs), which form virtual connections between the PEs. Similarly, the edge devices on the other side of the core network, which are owned and/or controlled by the same entity, contain dedicated virtual connections, allowing loopback addresses exchanged between the MCEs to flow through a data virtual circuit path.

41. As shown in Figure B, a virtual circuit is a path that connects the CEs via the core network. The data that flows between CEs is flown through the core network (*i.e.*, Provider Edge Network). Thus, the loopback addresses are exchanged between the CEs via the core network consisting of the data virtual circuit.

42. The Accused Products are configured to send IP addresses of customer networks associated with each CE to an associated IP service controller (IPSC).

43. The routes of VPNs are redistributed into MCEs. By doing so, the IP addresses of each CE's customer network is sent to the associated MCE.²⁷

²⁷ See *supra* ¶ 38.

44. As shown in the network diagram of Figure D below, an MCE can be configured “to separate routes from different VPNs and to advertise the VPN routes to PE 1 through OSPF”;²⁸

Figure 122 Network diagram

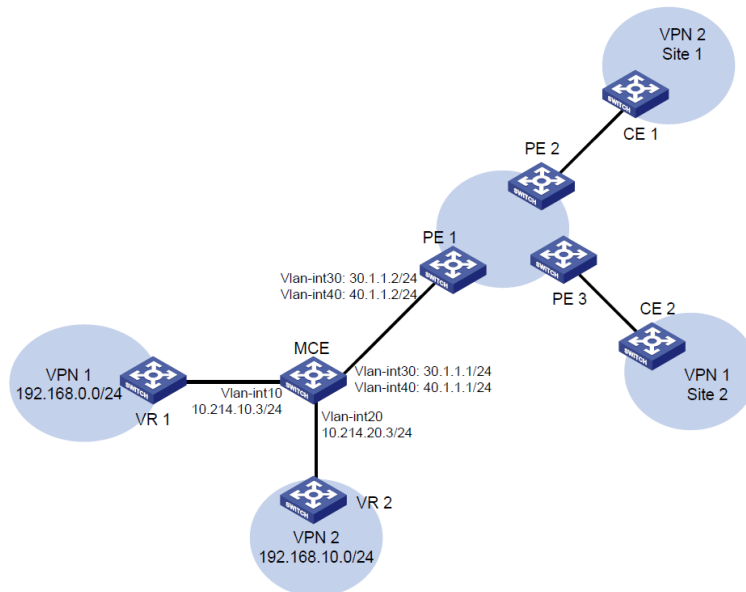


Figure D

45. The MCE can learn the routes of VPN 2 and add them to the routing table of the VPN instance vpn2. Similarly, the MCE can exchange routes with VPN 1 and add them to a separate routing table of the VPN instance vpn1. When configured to display the routing information maintained for VPN instance vpn2, the output shows the private routes of VPN 2, containing the IP addresses of the customer networks associated with it;²⁹

²⁸ See *supra* note 21 at 491.

²⁹ See *supra* note 21 at 493.

On the MCE, display the routing information maintained for VPN instance **vpn2**.
 [MCE] display ip routing-table vpn-instance vpn2

```

Destinations : 13          Routes : 13

Destination/Mask    Proto   Pre  Cost   NextHop         Interface
0.0.0.0/32          Direct  0    0       127.0.0.1       InLoop0
10.214.20.0/24       Direct  0    0       10.214.20.3     Vlan20
10.214.20.0/32       Direct  0    0       10.214.20.3     Vlan20
10.214.20.3/32       Direct  0    0       127.0.0.1       InLoop0
10.214.20.255/32     Direct  0    0       10.214.20.3     Vlan20
127.0.0.0/8          Direct  0    0       127.0.0.1       InLoop0
127.0.0.0/32         Direct  0    0       127.0.0.1       InLoop0
127.0.0.1/32         Direct  0    0       127.0.0.1       InLoop0
127.255.255.255/32   Direct  0    0       127.0.0.1       InLoop0
192.168.10.0/24      O_INTRA 10    2       10.214.20.2     Vlan20
224.0.0.0/4          Direct  0    0       0.0.0.0         NULL0
224.0.0.0/24         Direct  0    0       0.0.0.0         NULL0
255.255.255.255/32   Direct  0    0       127.0.0.1       InLoop0

```

The output shows that the MCE has learned the private routes of VPN 2. The MCE maintains the routes of VPN 1 and those of VPN2 in two different routing tables. In this way, routes from different VPNs are separated.

Table E

46. The Accused Products are configured to broadcast from said associated IPSC, said IP addresses of said associated customer networks to other IPSCs.

47. The Accused Products, configured as an MCE, can advertise VPN routes to other MCEs or PEs, which are owned and/or controlled by the same entity. The VPN routes are the IP addresses of the associated customer networks of a CE. For example, in Figure D, an MCE (*e.g.*, MCE 1) is connected between VR 1/VR 2 and PE 1. Similarly, an MCE (*e.g.*, MCE 2) can be connected between VPN sites (*e.g.*, VPN site 1 and VPN site 2) and PE 2. MCE 1 can advertise the routes to MCE 2 (*i.e.*, broadcasting from said associated IPSC, said IP addresses of said associated customer networks to other IPSCs). MCE 2 can add a received route to the routing table of the VPN instance that is bound to the receiving interface.³⁰

48. The Accused Products are configured to send, from each CE to an associated IPSC, a list of received loopback addresses, and send, from each IPSC to an associated CE, customer network addresses received from other IPSCs.

³⁰ See *supra* ¶ 38.

49. As shown in Figure D, as MCEs, the Accused Products can exchange private route information with the VPN sites and PEs, and add the private route information to the routing tables of the corresponding VPN instances.³¹

50. With MCE configured, the Accused Products can bind each VPN in a network with a VLAN interface on the MCE. For example, the MCE will associate the received loopback address with the respective CE (*i.e.*, sending, from each CE to an associated IPSC, a list of received loopback addresses).³²

51. In Figure D, “VPN 2 runs OSPF” and the MCE device is configured “to separate routes from different VPNs and to advertise the VPN routes to PE 1 through OSPF.”³³ In order to “[r]un OSPF in VPN 2,” one “[c]reate[s] OSPF process 20 and bind[s] it to VPN instance vpn2 on the MCE, so that the MCE can learn the routes of VPN 2 and add them to the routing table of VPN instance vpn2.”³⁴ When configured to display the routing information maintained for VPN instance vpn2, the output shows the private routes of VPN 2, containing the IP addresses of the customer networks associated with it with the next hop address associated with it (*i.e.*, sending, from each IPSC to an associated CE, customer network addresses received from other IPSCs):³⁵

³¹ See *supra* ¶ 47.

³² See *supra* ¶ 38.

³³ See *supra* note 21 at 491.

³⁴ See *supra* note 21 at 493.

³⁵ See *supra* note 21 at 495.

Verify that PE 1 has learned the static route of VPN 1 through OSPF.

[PE1] display ip routing-table vpn-instance vpn1

Destinations : 13			Routes : 13		
Destination/Mask	Proto	Pre	Cost	NextHop	Interface
0.0.0.0/32	Direct	0	0	127.0.0.1	InLoop0
30.1.1.0/24	Direct	0	0	30.1.1.2	Vlan30
30.1.1.0/32	Direct	0	0	30.1.1.2	Vlan30
30.1.1.2/32	Direct	0	0	127.0.0.1	InLoop0
30.1.1.255/32	Direct	0	0	30.1.1.2	Vlan30
127.0.0.0/8	Direct	0	0	127.0.0.1	InLoop0
127.0.0.0/32	Direct	0	0	127.0.0.1	InLoop0
127.0.0.1/32	Direct	0	0	127.0.0.1	InLoop0
127.255.255.255/32	Direct	0	0	127.0.0.1	InLoop0
192.168.0.0/24	O_ASE2	150	1	30.1.1.1	Vlan30
224.0.0.0/4	Direct	0	0	0.0.0.0	NULL0
224.0.0.0/24	Direct	0	0	0.0.0.0	NULL0
255.255.255.255/32	Direct	0	0	127.0.0.1	InLoop0

Table F

52. The Accused Products are configured to populate, at each CE, a local routing table with information mapping the customer networks with a data virtual circuit.

53. The VPN instances are first configured on the MCE and PE that is connected to the MCE (*i.e.*, PE 1). Route exchange can be configured between the MCE and the VPN sites. An MCE can adopt routing protocols to exchange information with the VPN sites. For example, if VPN site 2 is configured to run Open Shortest Path First (OSPF) routing, the MCE can learn the routes of VPN 2 and add them to the routing table of the VPN instance vpn2. Similarly, the MCE can exchange routes with VPN 1 and add them to a separate routing table of the VPN instance vpn1.³⁶

54. In Figure D, the IP address of the customer network (*i.e.*, VPN instances) associated with MCE 1 is mapped to the VLAN instance interface of the PE 1, as shown in Table F. Dedicated VLAN interfaces bind the VPN instances on the different VPN sites to the MCE. The MCE is connected to the PE 1 through a trunk link with VLAN interfaces. In the core

³⁶ See *supra* ¶ 38.

network, the PEs are connected by Pseudowires (PWs), which form virtual connections between the PEs. Similarly, the edge devices on the other side of the core network would contain dedicated virtual connections, allowing data from MCE 1 to flow through a data virtual circuit path

55. For example, in Figure D, the next-hop address from the customer network associated with the VPN instance of an MCE 1 to the PE1 is the address of the VLAN Interface of PE 1. The path from MCE 2 to the customer network associated with MCE 1 is passing through the core network. Thus, the path is a data virtual circuit, so the customer networks are mapped to the data virtual circuits in the populated routing tables.³⁷

56. In view of the preceding paragraphs 31–55, the Accused Products are configured to perform each and every element of at least claim 1 of the '534 Patent.

57. Defendants have infringed, and continue to directly infringe, at least one claim of the '534 Patent, literally or under the doctrine of equivalents, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States, including within this judicial district, without the authority of Brazos. HPE's infringing use of the Accused Products includes its internal use, testing, demonstration and/or configuration of the Accused Products.

58. Upon information and belief, each and every element of at least claim 1 of the '534 Patent is practiced or performed by HPE at least through HPE's internal use and configuration of its own Accused Products, and/or through HPE's testing of the Accused Products, and/or through HPE providing services for the Accused Products, including but not

³⁷ See *supra* ¶ 38.

limited to providing installation, deployment, support, demonstrations, and configuration of the Accused Products.

59. For example, upon information and belief, as part of HPE's business, HPE offers, for a fee, training and certification programs to its employees, customers, and partners that teach how to use and/or implement the Accused Products. Upon information and belief, HPE, while teaching others how to use and/or implement the Accused Products, performs demonstrations, and in so doing, practices each and every element of at least claim 1 of the '534 Patent.

60. As of the date of service of the initial complaint, August 18, 2020, HPE has had actual or constructive knowledge of the '534 Patent and has been on notice of its infringement of the '534 Patent and of how the Accused Products infringe the '534 Patent. Notwithstanding this knowledge and notice, since that time, HPE has continued to infringe the '534 Patent, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States.

61. Upon information and belief, H3C has had actual or constructive knowledge of the '534 Patent and has been on notice of its infringement of the '534 Patent and how the Accused Products infringe the '534 Patent since sometime between the date of service of the initial complaint on HPE and June 4, 2021 when Brazos requested review of the source code for the Accused Products. Notwithstanding this knowledge and notice, since that time, H3C has continued to infringe the '534 Patent, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States.

62. Since at least the date of service of the initial complaint for HPE, and at least June 2021 for H3C, through their actions, Defendants, with knowledge of the '534 Patent, have actively and knowingly induced customers, product makers, distributors, retailers, and/or end

users of the Accused Products to infringe the '534 Patent throughout the United States, including within this Judicial District. The Accused Products, as provided to Defendants' customers and end-users and used as intended and instructed, infringe the '534 Patent. Defendants were and are aware that the normal and customary use by end users of the Accused Products infringes the '534 Patent. Upon information and belief, Defendants' customers and end-users have used and continue to use the Accused Products in the United States in this manner and directly infringe the '534 Patent. Despite Defendants' knowledge of the '534 Patent and knowledge and/or willful blindness that their actions induce infringement by customers and/or end-users, Defendants have made, sold, and/or offered for sale the Accused Products, and are continuing to do so, with the specific intent to actively encourage customers and/or end-users to make, use, sell, offer for sale and/or import one or more Accused Products in a manner that Defendants know to be infringing.

63. Moreover, Defendants have taken and continue to take active steps to induce infringement of at least claim 1 of the '534 Patent, knowing that those steps will induce, encourage, and facilitate direct infringement by customers, product makers, distributors, retailers, and/or end users. Upon information and belief, such active steps include making or selling the accused products outside of the United States for importation into or sale in the United States, and directing, facilitating, or influencing its or their intermediaries, or third-party manufacturers, shippers, distributors, retailers, or other persons acting on its or their behalf, to import, sell, or offer to sell the accused products in an infringing manner. Defendants also direct, control, and/or encourage customers' and/or end-users' performance of the claimed steps by taking active steps that include, but are not limited to: making, using, configuring, and selling the Accused Products; instructing end-users to use the Accused Products; creating and disseminating advertising and promotional materials that encourage the use of the Accused Products, including

product descriptions, operating manuals, configuration guides, support materials, technical materials, and other instructions on how to implement and configure the Accused Products; and providing training and certification programs that teach and demonstrate how to use and/or implement the Accused Products. Defendants have known that such activities induce customers and/or end-users to infringe at least claim 1 of the '534 Patent since the date of service of the initial complaint for HPE and at least June 2021 for H3C.

64. Examples of Defendants' manuals, instructional and support materials, and/or configuration guides for the Accused Products, provided by Defendants on their websites, that teach and instruct end-users to use and/or configure the Accused Products in ways that practice the claimed invention, include but not are not limited to:

- <https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643>;
- https://techhub.hpe.com/eginfolib/networking/docs/switches/12900/cg/5998-4367_mpls-cg/content/index.htm;
- https://support.hpe.com/hpesc/public/docDisplay?docId=a00007132en_us;
- <https://support.hpe.com/hpesc/public/docDisplay?docId=c05218883>;
- https://support.hpe.com/hpesc/public/docDisplay?docId=a00077571en_us;
- https://support.hpe.com/hpesc/public/docDisplay?docId=a00077564en_us;
- https://support.hpe.com/hpesc/public/docDisplay?docId=a00041116en_us;
- https://www.h3c.com/en/Support/Resource_Center/Technical_Documents/Routers/; and
- https://www.h3c.com/en/Support/Resource_Center/Technical_Documents/Routers/.

65. Defendants' inducement is ongoing. Defendants have continued to induce direct infringement by others, including by instructing end-users regarding the operation and use of the

Accused Products in ways that practice the claimed invention, even after being put on actual notice of the infringement of the '534 Patent.

66. Since at least the date of service of the initial complaint for HPE, and at least June 2021 for H3C, through their actions, Defendants have contributed to, and are contributing to, the infringement of the '534 Patent by having others, including HPE with respect to H3C, sell, offer for sale, or use the Accused Products throughout the United States, including within this judicial district, with knowledge that the Accused Products infringe the '534 Patent. Defendants have made and/or sold the Accused Products with knowledge that they have special features that are especially made or adapted for infringing the '534 Patent and are not staple articles of commerce suitable for substantial non-infringing use. For example, in view of the preceding paragraphs, the Accused Products contain functionality which is material to at least claim 1 of the '534 Patent.

67. The special features include providing MPLS L3VPN and implementing IP-VPN services utilizing layer-2 point-to-point connectivity, which is used in a manner that infringes the '534 Patent.

68. The special features constitute a material part of the invention of one or more claims of the '534 Patent and are not staple articles of commerce suitable for substantial non-infringing uses. The Accused Products have no substantial non-infringing uses.

69. Defendants' direct and indirect infringement have caused, and are continuing to cause, injury to Brazos.

70. Brazos has suffered damages as a result of Defendants' direct and indirect infringement of the '534 Patent in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

JURY DEMAND

Brazos hereby demands a jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Brazos respectfully requests that the Court:

- (a) enter judgment that Defendants infringe one or more claims of the '534 Patent literally and/or under the doctrine of equivalents;
- (b) enter judgment that Defendant have induced infringement and continue to induce infringement of one or more claims of the '534 Patent;
- (c) enter judgment that Defendants have contributed to and continue to contribute to the infringement of one or more claims of the '534 Patent;
- (d) award Brazos damages, to be paid by Defendants in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by Defendants of the '534 Patent through the date such judgment is entered in accordance with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. § 284;
- (e) declare this case exceptional pursuant to 35 U.S.C. § 285; and
- (f) award Brazos its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Respectfully submitted,

Dated: August 25, 2021

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